A Needs Assessment for Outreach in the Lower Rouge River

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SUMMARY

The researchers conducted a needs assessment in the Rouge River Area of Concern (AOC) to understand stakeholder perceptions of the Lower Rouge River and a proposed plan to clean up contaminated sediment from the river. Interviews were conducted with 24 individuals from three major stakeholder groups identified as important audiences for outreach: municipal government officials, environmental non-governmental organizations, and members of the residential community near the Lower Rouge River. The researchers used a conventional qualitative content analysis to reveal coded themes. This report summarizes five findings from the analysis and their implications for outreach. 1) Industry is a fact of life and part of the history of the Lower Rouge River. 2) Contaminated sediment is just one of many stressors to the health of the Lower Rouge River. 3) The juxtaposition of nature and industry along the Lower Rouge River creates divided perceptions of the Lower Rouge River's aesthetics and environmental health. 4) The Lower Rouge River has potential as a mixed-use waterway, but lack of access limits the river as a resource for the community. 5) A combination of outreach methods is needed to reach the diverse group of stakeholders of the Lower Rouge River. Findings from this assessment will guide outreach efforts for future Great Lakes Legacy Act sediment cleanups in the Lower Rouge River.

INTRODUCTION

The Rouge River watershed drains 467 square miles of southeast Michigan (Figure 1), flowing through one of the most industrialized regions in the Great Lakes. The final 2.5 miles of the Rouge River Main Branch is maintained as a shipping channel from the turning basin to the Detroit River (hereinafter referred to as the Lower Rouge River; Figure 2). The Lower Rouge River is bordered by multiple cities, including the Dearborn, Detroit, Melvindale, and River Rouge. In 1922, a shortcut channel was created between the Lower Rouge River and the Detroit River to allow commercial vessels to navigate the Lower Rouge River. The natural river channel (called the Old Channel) still flows around the north side of Zug Island.

In the 1980s, the International Joint Commission established a list of the 43 most degraded areas in the Great Lakes, designating them Great Lakes Areas of Concern (AOC). The Rouge River was listed as an AOC in 1987 due to poor water quality caused by persistent pollution from industrial and municipal sources and due to loss of fish and wildlife habitat as a result of development (U.S. Environmental Protection Agency [EPA], 2018). Since 2002, the EPA has partnered with states, municipalities, industries, and non-governmental organizations (NGO) to remediate contaminated sediment and restore habitat in these AOCs under the authority of the Great Lakes Legacy Act (GLLA). The GLLA is a voluntary cost-share program that has completed 21 cleanups, remediating more than four million cubic yards of contaminated sediment.

EPA and the State of Michigan have conducted investigations of the Lower Rouge River to assess sources and locations of pollutants. The Lower Rouge River is contaminated with PCBs, PAHs, heavy metals, and oil and grease left behind by historical industrial practices (Remedial Action Plan for the Rouge River Basin, 1990). Recently, Honeywell International, Inc. and EPA designed a plan under the GLLA to remediate approximately 70,000 cubic yards of contaminated sediment in the Lower Rouge River Old Channel. Cleanup of the Old Channel is expected to begin in 2018 and last about two years. EPA and MDEQ have conducted investigations of contaminated sediments in the remainder of the Lower Rouge River but no partners have come forward to pursue remediation thus far.

Previous Research

In southwest Detroit, environmental stressors cause physical health issues, modification of daily activities, and emotional strain on residents (Farquhar, Parker, Schulz, & Israel, 2005; Schulz, Israel, Mentz, Stokes, & Galea, 2008; Lougheed, T., 2014; Wisnieski, Strane, Anderson, Wahl, & Garcia, 2016). These stressors from the physical environment affect low-income populations at a disproportional rate (Schulz et al., 2008; Wisnieski et al., 2016), and individuals from low-income populations are generally less likely to participate in environmental decision-making (Laurian, 2004). However, perceptions of environmental risks—among other things—can motivate participation in decision-making and frame the way the public views efforts to remediate environmental problems. The benefits of sediment remediation in Great Lakes AOCs and elsewhere are well-defined, and involving residents can lead to an informed public and a successful cleanup (Bishop, 2001; Dewees & Schaefer, 2001; Druschke & Hychka, 2015).

Stakeholder involvement integrates pubic values and improves the quality of environmental decisions (Beierle & Konisky, 2001; Connelly & Knuth, 2002). Involvement and communication—especially during the early stages of the planning process—inform policymakers of where public backlash is likely to occur, allowing them to work collaboratively to overcome those obstacles (Irvin & Stansbury, 2004; Berquist, Campbell, Whitelaw, & Millard, 2012). Involvement also leads to public empowerment (Irvin & Stansbury, 2004) and reduced feelings of resignation, hopelessness, or acceptance of the current state of affairs—feelings that occur most often in low-income communities (Laurian, 2004).

Purpose

This paper presents a qualitative assessment conducted to determine how local individuals relate to the Lower Rouge River, perceive plans for sediment remediation, and have engaged with previous outreach efforts. The findings will shed light on the researchers' assumptions about target the audiences and will allow for new audiences and interests to emerge. Findings will also provide guidance for outreach related to GLLA sediment cleanups on the Lower Rouge River.

METHODS

Sampling and Data Collection

This study follows a methodology used in past Great Lakes AOC stakeholder research for GLLA sediment cleanup projects (Bishop, 2001; McCoy, Lower, & Krupa, 2014; Nigrelli & Norris, 2015). The researchers conducted this study with stakeholders of the site that represent target audiences identified for future outreach: municipal government officials, environmental NGOs in Detroit, and neighborhoods near the Lower Rouge River. Target audiences were chosen based on discussions with outreach leaders for sediment cleanups on the Lower Rouge River. Members of these audiences were interviewed by the research team to assess perceptions of the Lower Rouge River and proposed sediment remediation. Using a snowball sampling method, interviewees were asked to recommend additional interviewees until no new names were provided. Minorities are not well-represented in this study, as the researchers had difficulty acquiring recommendations from ethnically diverse neighborhoods. This limitation is unfortunately common in such research and a well-studied phenomenon in the literature (McLean & Campbell, 2003; Yancey, Ortega, & Kumanyika, 2006). In total, fifty-five stakeholders were contacted to participate in the assessment, and 24 individuals were interviewed (44 percent response rate). The study sample is intended to represent a variety of stakeholder views about the Lower Rouge River, but the results of this study are not generalizable to every stakeholder group in southwest Detroit. The study offers insight into the perceptions of the target audiences for future outreach efforts.

Interviews mirrored the method outlined in Nigrelli and Norris (2015), using 13 open-ended questions (Table 1) and allowing the interviewees to speak candidly about the river. Interviewees were encouraged to elaborate on topics that were important to them regarding the Lower Rouge River or the river community. In-person interviews lasted approximately 30 minutes and were conducted in a location selected by the interviewee. Researchers recorded audio with permission for transcription and took notes during interviews. Phone interviews of a similar length were performed with stakeholders that were unable to meet in person.

Data Analysis

The researchers performed conventional content analysis (Hsieh & Shannon, 2005) to derive codes directly from the interview transcripts. The researchers carefully read the transcripts three times, highlighting and taking notes on relevant portions. Codes were created based on interview trends and consolidated into themes.

The researchers used multiple verification strategies to produce reliable qualitative study results (Morse, Barrett, Mayan, Olson, & Spiers, 2002). A sample size of 24 interviewees was large enough to observe replication and information saturation, while also meeting study objectives. Researchers also used strategies (italicized below) for ensuring rigor during qualitative data analysis (Lincoln & Guba, 1985). A clear description of the research steps—from the development to reporting—was completed a priori to allow for *audit trailing*. *Reference materials* such as stakeholder-created websites and news articles, were studied prior to interviews to provide background information and ensure interview questions were properly developed for stakeholder audiences. The researchers also used *deviant case analysis* to revise and confirm the patterns emerging from the data during the analysis.

FINDINGS AND IMPLICATIONS

Finding #1: Industry is a fact of life and part of the history of the Lower Rouge River.

Detroit has long been a hub for Great Lakes commerce. Access to the water and proximity to Canada make Detroit the perfect location for industries like automobile manufacturing and steel production. Detroit is also a connecting point for rail and trucking operations, which attract transport and shipping companies to the area. The Lower Rouge River is a specialized channel that has been engineered to provide industries and transport companies access to the Great Lakes. (I = Interviewee quote).

> I_1: That the channel has—really the local economy—much of it developed around that channel because that's why Ford and other industries were able to locate there to get all of their goods transported easily by barge.

Industry plays an important role for Detroit by stabilizing the tax base, providing jobs, and producing essential products for society. Interviewees acknowledge these benefits but lament the

tradeoffs caused by their operations, which are largely localized. There is an understanding that industry must exist somewhere, but this region has borne the majority of the negative impacts industry causes.

> I_2: So I think from the standpoint of residents, it's a fact of life, but I don't think it's one they necessarily cherish. Except maybe in a love-hate kind of way.
>
> I_3: Well, I think industry is an important part of our life, regardless of whether we like it or not. You know, Marathon produces products that we use in our daily life, whether we like to admit it or not. Whether it's the tires we drive on the road or the gas we put into our vehicles. Industry is an unavoidable truth and tragedy of the way we exist in modern society. And so, unfortunately, it has to exist somewhere and it just happens to exist there.

Detroit is expecting significant new developments in the next decade. A new international bridge to Canada, the Gordie Howe International Bridge, is scheduled for construction in 2018 just north of the Lower Rouge River. In addition, the DTE Energy Co. coal-fired power plant is scheduled for decommissioning by 2023. Planning is underway for what will replace DTE at that site. Despite these imminent changes, nearly all interviewees perceive that land use is not going to change dramatically along the Lower Rouge River, further emphasizing that industry is a fact of life for Detroit.

> I_4: We're not going to change in the very near future how Zug Island is used as a stockpile. The land uses aren't going to really change. They are not going to knock down anything over there and build condos there. We have an industrial base. That's not going to change.
>
> I_5: Yeah. Ford is going to be there. U.S. Steel's going to be there. The wastewater treatment plant is going to be there. They're not going anywhere. Their capacity fluctuates. Marathon Oil is also there. They're going to be there. They're not going anywhere.

Outreach and Management Implications

- Because the community of southwest Detroit has borne the cost of industry for over a century, outreach should not over-emphasize the good-will aspect of the voluntary nature of the GLLA partnership. A project description that is duty-centered may resonate better with the target audiences.

Finding #2: Contaminated sediment is just one of many stressors to the health of the Lower Rouge River.

Interviewees describe an omnipresent sense of pollution regarding the Lower Rouge River. When asked about the greatest threats to the river, participants cite air pollution, sediment contamination, land uses, inattention by the surrounding industries, and combined sewer overflows. The 48217 zip code near the Lower Rouge River has even been labeled the most polluted in Michigan. Collectively, these perceptions of contamination are impacting morale and quality of life along the Rouge River.

> I_6: It's very polluted. Very much so. And I don't know… when they say clean up the Rouge, who knows what could be in there? It seems to be this area of southwest Detroit seems to be the dumping ground. A lot of illegal dumping. So I wouldn't be surprised if there was trash in there, you know?
>
> I_7: It's as polluted as you really can get. I mean, I don't know how much more polluted you could really be in that area. I mean, there's always a threat of… I don't know. I don't really think it could get much worse.

For many, contaminated sediment is just one part of the pollution issue. There is a lot of concern about air quality along the Lower Rouge River and the effect it has on the people who live there. In multiple instances, entire neighborhoods have been bought out or relocated due to air quality issues, causing the area to become extremely depopulated. Interviewees brought up air quality frequently when discussing threats to quality of life.

> I_8: …this part of Michigan has the highest rate of chronic illnesses. You know? I've had a couple of children acquire asthma since I've been here. And there's other respiratory illnesses and so forth.
>
> I_9: …in terms of regulations, we can see these different emitters as sort of silos. So that each one is restricted by regulations, and most of them that we know of are operating within those boundaries, so they're operating legally. They're playing by the rules. But taken together in the aggregate, they have this cumulative effect on the entire area. And that's something that the residents definitely feel.

Construction of the new bridge is not likely to improve the air quality along the Lower Rouge River. More homes and neighborhoods are being bought out and bulldozed to accommodate the new U.S. Port of Entry plaza, exacerbating depopulation.

Only a few interviewees identify sediment cleanup as the top priority for protecting the overall health of the Lower Rouge River. Others connect a sediment cleanup to more tangible benefits, such as

safe fish consumption and improved water quality. Currently, stakeholders perceive fish consumption from the Detroit River as being safer than fish from the Lower Rouge River because of the visible improvements to water quality in the Detroit River, despite consumption advisories and restrictions for both rivers.

> I_{10}: But, you know, it's the Legacy Act aspect of this is the sediments and contaminated sediments that could possibly be addressed. You get rid of that, just call it the foundation of our pollution there. I would rather spend 99% of the money on the remediation of the contaminated sediments because that's the foundation of our problem.
>
> I_{11}: We always heard how bad it was and I'm saying there is people that still fish there, but I, myself, wouldn't fish there. Just from all the stories I've heard from the past 40 or 50 years, I would not fish there. Now, if it got cleaned up, it would be used a whole lot more. I, myself, feel more comfortable fishing in the Detroit River.

Outreach and Management Implications

- Outreach must be clear in defining what environmental problems will—and what will not—be addressed by sediment remediation given the number of threats perceived on the Lower Rouge River.
- Outreach should partner with local environmental outreach leaders to frame sediment cleanup efforts in the larger environmental context, including multiple environmental problems and the work being done to solve them.
- Outreach should be transparent about any effects that a sediment cleanup would have on air pollution. The project would do well to incorporate a significant air monitoring component.
- Michigan's Eat Safe Fish program has resources for fish consumption guidelines. Outreach efforts should use the available resources to guide discussion about fish consumption on the Lower Rouge River.

Finding #3: The juxtaposition of nature and industry along the Lower Rouge River creates divided perceptions of the Lower Rouge River's aesthetics and environmental health.

Some interviewees view the contrast between the natural scenery of the Lower Rouge River and the industrial landscape that surrounds it as both unique and beautiful. From a paddler's perspective, the slow moving water in this section provide excellent opportunities for non-motorized boaters to get up-

close views of the barges and vessels working on the water. Additionally, the turning basin allows paddlers a panoramic view of the industries that line the Lower Rouge River shoreline.

> I_{12}: There is an interesting aspect of the whole steel mill. The appearance of the steel mill in the juxtaposition with the native environment. You know, the natural environment of the river itself. It's just kind of an interesting composition. And I think if there's opportunity to further enhance the natural aspect, it would increase that contrast. Even make it more interesting.

The unique aesthetics attract water users and other members of the public that are interested in seeing the landscape from the water. The Friends of the Rouge association organizes annual events on the Lower Rouge River to highlight the history of the area and the industries alongside the river, including a paddling trip and a "Rouge Cruise," which attracts 150 or more participants.

> I_{13}: "Who's going to want to go on a trip like that? By all that industry?" And, turns out, it's their most popular tour and it usually sells out every year. We had a waiting list this year. And people always come back with so many questions and they're just fascinated by the industry there.
>
> I_{14}: You know, the first time I paddled down the Lower Rouge and Zug Island, I was struck by it in a way that I've never been struck by anything before. I was sort of in awe and in disbelief that something that large existed and in that kind of proximity to a waterbody. And in some ways it was quite beautiful, actually.

There has also been a resurgence of bird and fish species to the Lower Rouge River, which interviewees see as adding to the aesthetic value of the river. Some of the industrial features—like smokestacks and warmer water due to water discharges—seem to provide specialized habitat features for birds and fish that might otherwise not exist in an urban area. Interviewees also cite the improving water quality as a potential cause for this recovery.

> I_{15}: What they've found, overall, in the Rouge is that there's been an increase in the number of species. There are fewer in this part of the river than in other parts of the river, but I think there's – and this is what we tell people in the community – is that from nature's standpoint, there's no area that's beyond recovery, necessarily.
>
> I_{16}: I mean, there is a lot of wildlife. When we get down there, we tend to see a lot more birds. Cormorants, egrets, great blue herons.

While some stakeholders see the contrast between nature and industry as beautiful, others do not. Rather, they view the industry as an ugly part of the landscape with the pollution that it brings overwhelmingly coloring their perceptions.

I_{17}: The channel [is] depressing. It just looks depressing to look over at all that black, sooty stuff. I don't particularly like looking at it and I rarely go that way. Even as I speak, I have a visual of all that dirt and so forth.

For these interviewees, the continued presence of the industries prevents them from believing the river could ever be cleaned up. They believe that dense industry and clean water do not coexist. Likewise, they believe the sediment contamination in the river is an ongoing problem and will come back.

I_{18}: Companies [are] still there. Marathon is still there. The water filtration system is still there. How is it going to prevent the same thing from happening [again] in the next couple of years?

I_{19}: Okay. Yeah. It's a steel mill so it's these billowing smokestacks, piles of coal, and you know, the whole place is just black. [Zug Island is] a totally black island. Obviously there's been a variety of polluters, but I don't know all of them.

Sediment remediation is unlikely to impact this perception because the greatest benefits will take place beneath the surface of the water. Interviewees suggest that green space improvements to the shoreline could enhance the juxtaposition of nature and industry, make the river look cleaner, and reduce the visibility of industry along the river.

I_{20}: I'm not sure how much removing the sediments… I'm not sure what they'll end up doing with the stabilization of the bank because that's probably what people are going to see more than what comes out of the bottom. So I think that the way that is treated will have a bigger impact on people's perception.

I_{21}: I mean, I think the improvements – unless the shoreline was totally ignored – it can only get improved from here. So I'd say, you know, shoreline restoration should be part of it just for any amount of stabilization, habitat creation, and just the aesthetics of a cleaner shore.

I_{22}: But you know, you could incorporate some green zones or something like that marginally beautify and renaturalize the streambank.

Outreach and Management Implications:

- Outreach must be clear that sediment remediation is intended to clean up historic pollution that persists in the sediment from historic discharges. The project has evaluated and is addressing any remaining significant sources so that sediment will not be recontaminated per the GLLA law.
- Shoreline softening is not an expected component of the current sediment cleanup in the Old Channel. Outreach should attempt to make the underwater improvements of that project tangible.

Finding #4: The Lower Rouge River has potential as a mixed-use waterway, but lack of access limits the river as a resource for the community.

Despite the presence of pollution, interviewees representing watershed groups and environmental NGOs see the Lower Rouge River as a valuable recreational resource for the community. However, a general lack of access in the Lower Rouge River prevents the community from using it. Watercraft launch from upstream in Melvindale or from the Detroit River and shore anglers' only access to the water is from a dead-end street across from Zug Island. If the river is inaccessible, it is not an asset that improves quality of life.

> I_{23}: If people had access to it, it would improve the quality of life. But there's no access. No. It's all privatized.
>
> I_{24}: Again, I don't know that it's going to really improve the quality of life unless maybe there's a kayak launch that's put there and people are able to use that. Or some way that people can re-interact with the river.
>
> I_{25}: And some of the things that we've already started talking with our planning team about the idea of connecting the community. Or providing connections to the community to the river. There's not a lot of them down there. The river is a unique resource and one of the planning angles that we're looking at is to possibly look at opportunities to provide more access to the community to the river.

Local organizations are aware of the limited access points to the Lower Rouge River and are working to change that. The Friends of the Rouge are developing a water trail that extends into the Lower Rouge River; the City of River Rouge is considering adding a kayak launch to attract water users to the area; and the Fort Rouge Gateway Partnership is designing a small waterfront park at the Fort Street Bridge crossing, which includes a kayak launch and regional connection for biking.

> I_{26}: [the City of River Rouge has] been actually thinking about trying to apply for a kayak launch because it seems like it's getting more popular and the water – especially in the Detroit River – is getting a lot cleaner. And this water in this channel has gotten a lot cleaner.

Perceived benefits of a sediment remediation project are primarily recreational, and limited access makes some interviewees skeptical that a sediment cleanup would benefit the community. Alternatively, many believe a sediment cleanup could make the Lower Rouge River a valuable place for

fishing, especially if habitat features are created or restored. The Lower Rouge River is located next to the Detroit River – a world-class walleye fishery that attracts thousands of anglers each spring.

I_{27}: And it might actually improve the fishing quite a bit there. I mean, that's how… let alone the kayaking and everything else… recreational use.

I_{28}: I think it is in terms of spawning. I think it could be good spawning habitat and it's not. I don't think it is. There may have been some work done recently. So I think the quality for the ecosystem could be improved dramatically.

Outreach and Management Implications

- Outreach should connect with leaders from local organizations to find and inform about other planning projects that are providing safe, legal public access to the Lower Rouge River.
- For stakeholders interested in better connecting with the resource, recreational benefits of the Lower Rouge River, such as sightseeing, birdwatching, and kayaking, can be provided in outreach materials.

Finding #5: A combination of outreach methods is needed to reach the diverse group of stakeholders of the Lower Rouge River.

Given the diversity of stakeholders in the Lower Rouge River, interviewees suggested that each stakeholder group may require multiple outreach methods or a combination of techniques to remain informed about plans to clean up the Lower Rouge River. The interviewees described the following outreach techniques for recent economic development projects as successful: multilingual flyers, public forums, and working with trusted local leaders to pass along messages. Local politicians and community leaders also regularly use multi-lingual products to connect with the ethnically diverse community living near the Lower Rouge River.

I_{29}: In this particular neighborhood, you've got a very diverse a bilingual community. So first it's going to have to be English and Spanish. There is, a little bit more upstream and just west, an Arabic community. So you might even want to look at three languages.

I_{30}: Well I know what was effective for the last community meeting we had. I don't know if [she] recruited people that handed out bilingual flyers. And many of the children here are interpreters for their parents.

Interviewees emphasized the need for any forums and meetings with citizens to remain local and accessible. Churches and schools located in southwest Detroit neighborhoods have made for effective meeting venues for past development and environmental projects.

Connecting with trusted local leaders appears to be a primary method for providing information to the community. Block clubs and neighborhood groups are organized and established in this part of Detroit. Stakeholders suggested a number of important local organizations to partner with on outreach campaigns for the Lower Rouge River (Table 3).

Interviewees also implied that some of the residential community near the Lower Rouge River might not use email or websites to receive information or might not have access to these resources. This limits the effectiveness of digital outreach methods.

> I_{31}: A number of things. One, is you have an email list. Number two. Many of the people that live in this area… this zip code area don't have email.

As for reaching city officials, watershed groups, and environmental NGOs, interviewees suggested common digital channels as effective communication tools. Social media, websites, and email are the primary methods for outreach. Because these groups are well-connected to their individual constituents, they can also distribute information through these channels.

> I_{32}: I think that employing their trust is coupled with using some of their media outlets, whether it's their press releases so their media pools, their social media platforms, their websites, their newsletters.

Outreach and Implications

- Outreach products should be produced in English, Spanish, and Arabic.
- No single channel can be used to reach all target audiences. Hosting meetings in the local community, distributing flyers, and partnering with trusted local leaders are the most recommended methods to ensure awareness within the residential community.
- Social media and email can be effective ways to target environmental NGOs, city officials, and their constituents, but might not reach the residential community near the Lower Rouge River.

CONCLUSION

The qualitative content analysis of the Lower Rouge River stakeholder interviews produced key findings that provide insight into perceptions of the river and the proposed cleanup plan. From the interviews, it is clear that industry is woven into the history and future of southwest Detroit; industry is a fact of life for the community, and contaminated sediment is just one of many environmental stressors for the people of this area. Some stakeholders embrace the aesthetics and contrast of the river near such a large industrial landscape, but others are concerned about the effect it has on the health of the river. Recreational activities like kayaking, sightseeing tours, and birdwatching are becoming more popular on the Lower Rouge River—particularly among those stakeholders who embrace the contrast—but some see a lack of public access as a barrier to these activities and the quality of life of the community.

Interviewees suggest a multitude of methods for keeping the diverse community informed about plans to clean up the Lower Rouge River, including multi-lingual outreach products and working closely with local leaders that are already trusted by stakeholders. Other outreach and management implications provided for each finding can guide outreach efforts for the proposed sediment cleanup in the Lower Rouge River as well as future projects within the Rouge River AOC. Additional interviews will be necessary—post-remediation—to evaluate if perceptions have changed as a result of the sediment remediation work.

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APPENDIX

Table 1. Interview questions

#	Questions
1.	Tell me about the Lower Rouge River.
2.	What do you use the Lower Rouge River for? How often?
3.	What do you value the most about the Lower Rouge River?
4.	I'm going to name certain aspects about the Lower Rouge River. Please tell me your thoughts about each one. a. Aesthetics (or beauty) of the Lower Rouge River b. The Lower Rouge River's effect on quality of life c. The Lower Rouge River's effect on property values d. The Lower Rouge River's being a place for fish and wildlife to live and grow e. The Lower Rouge River's effect on the local economy or likelihood of new development
5.	What are the biggest problems or threats currently facing the Lower Rouge River?
6.	Please tell me what you know about any plans to clean up the Lower Rouge River
7.	Imagine that a cleanup and restoration took place in the Lower Rouge River. What do you think would change the most as a result?
8.	Will the remediation and restoration affect the following aspects? How? a. Aesthetics (or beauty) of the Lower Rouge River b. The Lower Rouge River's effect on quality of life c. The Lower Rouge River's effect on property values d. A place for fish and wildlife to live and grow e. The Lower Rouge River's effect on the local economy and likelihood of new development
9.	Have you received any information regarding the cleanup plans on the Lower Rouge River? Where did you receive the information? Was it easy to understand?
10.	What is the best way for the community to be informed about plans to clean up the Lower Rouge River?
11.	If we were to design a set of FAQs about the Lower Rouge River cleanup, what questions would you like to include?
12.	Do you have any suggestions on whom else I should talk to?
13.	Is there anything else you'd like to say about the Lower Rouge River or the local remediation and restoration?

Table 2. Questions posed by interviewees and the number of people who posed them

Questions	# People
What benefit does a cleanup provide to the public?	10
When does the project start? How long will it take?	8
Where will the contaminated sediment be disposed?	8
How does the cleanup benefit fish and wildlife?	7
What is being cleaned up? Where are the boundaries?	6
What is the process for cleaning it up?	6
Why is this cleanup being done?	5
Where is the cleanup taking place? What are the boundaries of the project?	5
How clean will the river be after the cleanup?	4
Can we eat the fish after it's cleaned up?	4
What's keeping the pollution from coming back? Won't the river be re-polluted?	4
Are there opportunities for the public to provide input or help with the cleanup?	4
Who is paying for the cleanup? How much will it cost?	4
Who are the partners working to clean up the Lower Rouge River?	4
How contaminated is the Lower Rouge River now?	3
Will there be public access to the river?	3
Will the cleanup impact create dust or air quality issues?	3
Will it look any different?	3
Will this impact travel on Jefferson Street or any other nearby roads?	3
Is there a point of contact or a hotline for more information?	3
Who is responsible for the pollution?	2
Will there be any impact on recreational and industrial water users during the project?	2

Table 3. Organizations identified by interviewees as important outreach audiences or partners

Organization/Agency/Department Name
City of Detroit
Detroit City Council
City of Dearborn
Wayne County
City of River Rouge
Friends of the Rouge
Friends of the Detroit River
Alliance of Rouge Communities
Alliance for the Great Lakes
Southwest Detroit Environmental Vision
People's Community Services
Congress of Communities
Chadsey-Condon Community Organization
University of Michigan-Dearborn
Wayne State University
Riverside Kayak Connections, LLC
Community Benefits Coalition
Sierra Club

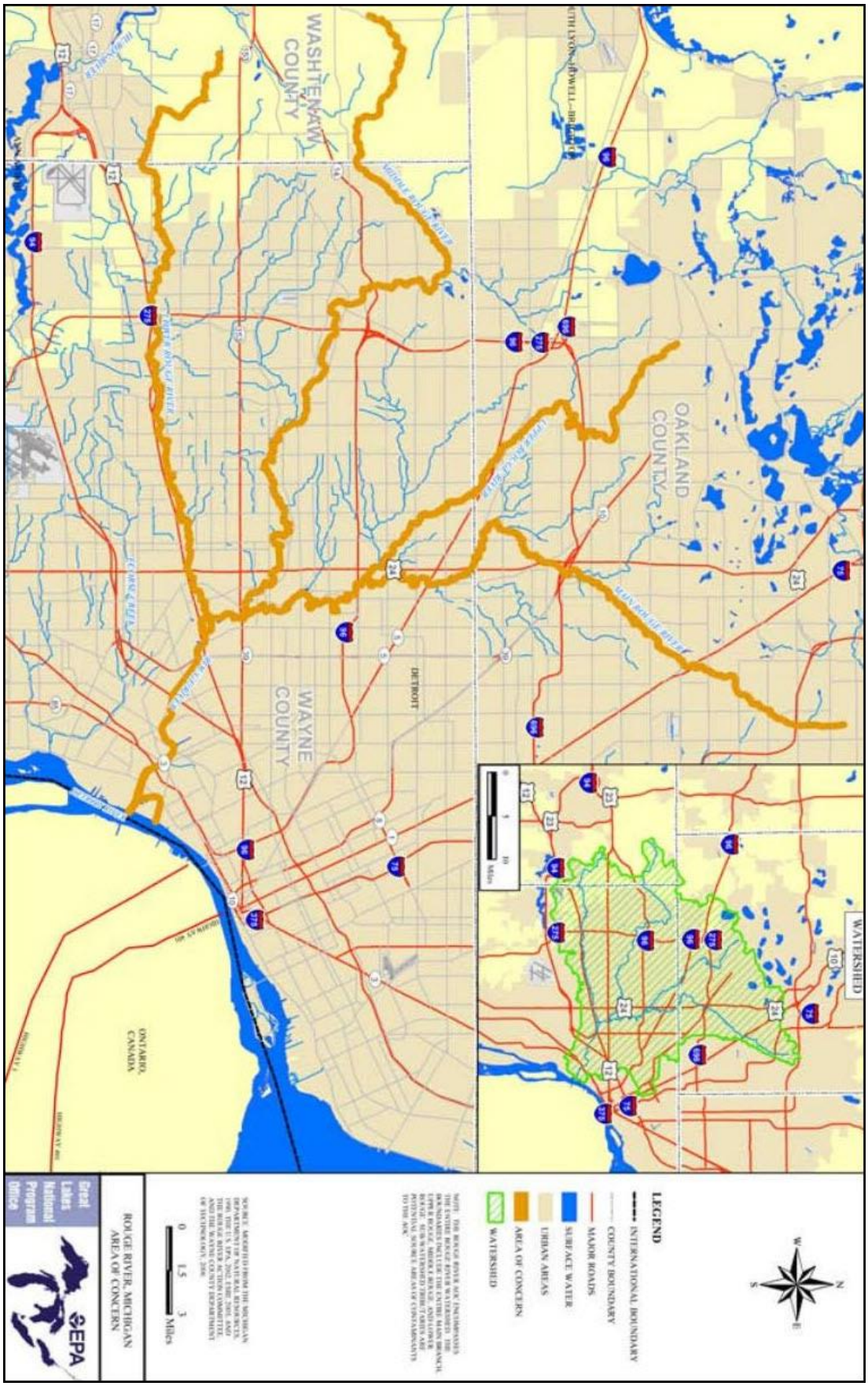

Figure 1. Rouge River Area of Concern (Michigan, USA)

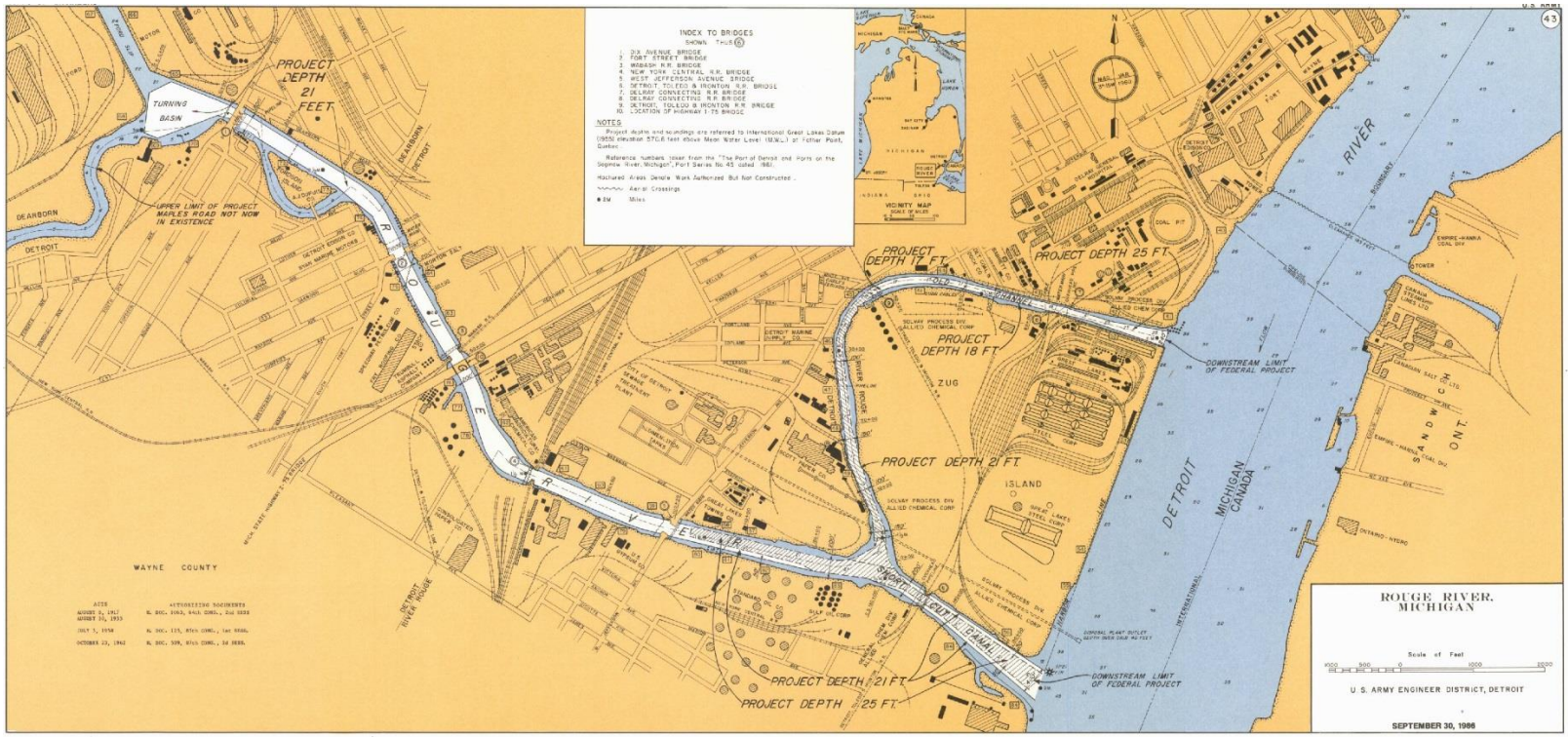

Figure 2. Lower Rouge River (Detroit, Michigan, USA; United States Army Corps of Engineers, 1986)